



US 20150133054A1

(19) **United States**(12) **Patent Application Publication****Chen et al.**(10) **Pub. No.: US 2015/0133054 A1**(43) **Pub. Date: May 14, 2015**(54) **METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR ADAPTIVE DEVICE DISCOVERY IN WIRELESS NETWORKS**(52) **U.S. Cl.**
CPC *H04W 8/005* (2013.01); *H04W 4/008* (2013.01)(75) Inventors: **Canfeng Chen**, Beijing (CN); **Jia Liu**, Beijing (CN)(73) Assignee: **Nokia Corporation**(21) Appl. No.: **14/401,525**(22) PCT Filed: **Jun. 1, 2012**(86) PCT No.: **PCT/CN2012/076382**

§ 371 (c)(1),

(2), (4) Date: **Nov. 16, 2014****Publication Classification**(51) **Int. Cl.**
H04W 8/00 (2006.01)
H04W 4/00 (2006.01)(57) **ABSTRACT**

Method, apparatus, and computer program product example embodiments enable wireless communication devices to reduce connection latency in high device population environments. In example embodiments, a method is disclosed for creating, at an apparatus, operating parameters for a wireless data channel connection and descriptive information regarding a time interval available to the apparatus for transmission of advertising channel messages and a count of a number of previous transmissions of the advertising channel messages to reduce connection latency in high device population environments; transmitting, by the apparatus, one or more wireless advertising channel messages indicating presence of the data channel connection, the operating parameters associated with the data channel connection, and the descriptive information regarding the time interval available for transmission of advertising channel messages and the count of the number of previous transmissions of the advertising channel messages; and transmitting information on the data channel connection according to the operating parameters.

